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**United States Patent** [19]

Tank et al.

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[54] **HIGH STRESS CAPABILITY,  
INTERMETALLIC PHASE TITANIUM  
ALUMINIDE COATED COMPONENTS**

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148/240; 148/528; 148/535

[58] **Field of Search** ..... 228/181; 428/660, 606,  
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[57] **ABSTRACT**

Coated components are produced to withstand high stresses and are composed of the intermetallic phase titanium aluminide material for use, in particular, in piston engines, gas turbines and exhaust gas turbochargers. This material has good technical properties but otherwise only a low resistance to oxidation and wear as a result of friction processes. These disadvantages are overcome in that the components are coated, at least on the parts of their surface which are at risk of hot corrosion and/or wear, with a sheet of a solderable nickel-based alloy soldered on under vacuum. A coating thickness of 0.1 to 0.4 mm is adequate. The nickel-based alloys, of which the soldered-on sheet is composed, preferably have a melting point of below 1180° C.

**3 Claims, No Drawings**